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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

Federal Communications Commission
Office of Secretary

In the Matter of)	
)	
Interconnection and Resale Obligations)	
Pertaining to)	CC Docket No. 94-54
Commercial Mobile Radio Services	j	

COMMENTS OF SOUTHWESTERN BELL MOBILE SYSTEMS, INC. AND PACIFIC BELL MOBILE SERVICES

Southwestern Bell Mobile Systems, Inc. and Pacific Bell Mobile Services ("collectively SBMS")¹ on behalf of itself and those entities in which it is a general partner of a partnership that provides cellular service, files these comments in response to the Commission's December 5, 1997 Public Notice seeking additional comments on whether the Commission should adopt an automatic roaming rule.²

As noted in SBMS' Comments in response to the Commission's Third Notice of Proposed Rulemaking in this Docket ("Third NPRM"),³ the imposition of mandatory automatic roaming is unwarranted, would supplant vigorous market driven competition with unnecessary and intrusive regulation and would have a chilling effect on

¹ SBMS/Pacific Bell Mobile Services is one of the largest providers of CMRS service in the United States with operations in over 80 cellular markets including 5 of the top 15 markets (Chicago, Boston, Washington DC, Dallas/Fort Worth, St. Louis) and 3 A/B block PCS licenses including 2 of the top 4 MTAs (Los Angeles-San Diego, San Francisco-Oakland-San Jose). SBMS also was the winning bidder on 8 BTA PCS licenses.

² <u>Public Notice, Commission Seeks Additional Comment on Automatic Roaming proposals for Cellular Broadband PCS, and Covered SMR Networks, CC Docket 94-54 (Released December 5, 1997).</u>

In the Matter of Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, CC Docket 94-54, Second Report and Order and Third Notice of Proposed Rulemaking (Released August 13, 1996). ("Third NPRM").

competition.⁴ As the Comments and Replies in response to the Commission's Third NPRM indicate, the overwhelming majority of CMRS licensees responding oppose the implementation of a mandatory automatic roaming rule. The pleadings submitted in response to the Third NPRM strongly supported allowing the competitive forces of the market to continue to drive automatic roaming arrangements, as it has done successfully since the inception of cellular, rather than forcing a regime of regulatory mandated automatic roaming upon the industry.

Having reviewed the record, the Commission now seeks to reopen the record to allow interested parties to provide any updated comments on the automatic roaming proposals.⁵ The experience of SBMS, as both a cellular provider and PCS provider, indicates that the mandatory automatic roaming proposal remains a faulty solution searching for a problem.

I. The Record of the Wireless Industry Continues to Demonstrate that

CMRS Providers Will Enter into Commercially Reasonable Automatic

Roaming Agreements Without the Substitution of Regulatory Mandate
for the Competitive Forces of the Market.

As SBMS noted in its Comments in response to the Third NPRM, the wireless industry created the automatic roaming processes enjoyed today without regulatory mandate. The Commission mandated only manual roaming.⁶ Carriers, realizing the advantages of automatic roaming, negotiated agreements, established methods of

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⁴ Comments of Southwestern Bell Mobile Systems, Inc., CC Docket 94-54, Comments Filed October 3, 1996. ("SBMS Third NPRM Comments").

⁵ <u>Public Notice</u>, p. 2. The Commission specifically requests information regarding the ability of new CMRS entrants (particularly PCS C, D, E, and F block licensees) to provide automatic roaming, the extent to which CMRS providers have entered into roaming agreements and any other recent developments. The Commission also requests specific comments on whether the automatic roaming proposals are technically compatible with the CMRS number portability requirements.⁵

^{6 47} USC 22.901.

exchanging information for billing and settlement purposes, established methods of fraud control, and worked together, both as an industry and on an individual case basis, for technical solutions to make automatic roaming even easier and efficient. A key element to the advancement of automatic roaming was the flexibility to enter into arrangements on such contractual and technical terms as made sense, given the participating carriers' positions. Such flexibility created opportunities for innovation and efficiencies. Such advances came about not because of regulatory mandate but rather because the marketplace demanded it. Likewise, the potential for roaming revenue was a strong incentive and spurred the advancement and availability of automatic roaming.

The same market demands and economic incentives are spurring the extension of roaming agreements to all CMRS providers. SBMS has entered into automatic roaming agreements with over 175 different carriers. In responding to the Third NPRM, SBMS noted that it had executed one amendment supplanting the definition of "cellular service" with "wireless service" so that each party's PCS licenses would be included once they became operational. SBMS also noted that two other PCS providers had discussed a roaming agreement generally but were not ready to enter into agreements. Such was the total activity by PCS providers approaching SBMS regarding roaming agreements as of October 1996.

During the 14 months since the filing of such Comments, SBMS has continued to respond to roaming inquiries from any CMRS provider and has entered into negotiations with all carriers desiring to pursue an agreement. SBMS has entered into agreements

⁷ Affidavit of Lisa Guarnacci, Director of Inter-Carrier Services, attached hereto as Attachment A.

⁸ SBMS Third NPRM Comments, p. 3-4 and accompanying affidavit.

with two PCS companies, one in the A/B block and one in the C/D/E/F block. SBMS is also in negotiation with six other PCS providers representing both the A/B block and the C/D/E/F block. SBMS also entered into an agreement for both cellular and PCS operations with another carrier holding both cellular and PCS licenses. SBMS is also in negotiation with three other carriers having both cellular and PCS operations for roaming agreements covering both technologies. These agreements and negotiations represent all FCC licensed PCS providers who have approached SBMS for a roaming agreement.

Actual experience continues to demonstrate that a mandatory automatic roaming regulatory regime is unnecessary. Competitive forces and the economic incentives associated with automatic roaming are sufficient. Simply put, SBMS would rather have the PCS roaming customer using our system than our competitor's system. PCS carriers, including the new entrants, like the cellular carriers traditionally, have the ability to "shop" amongst the various carriers in each market and to negotiate one against the other for best price and efficiencies. The new PCS entrants serving the BTAs, which are at a disadvantage in matching the footprint of those holding the MTA licenses, currently have the flexibility to enter into lower reciprocal wholesale rates with PCS providers serving neighboring BTAs. By gaining a lower reciprocal exchange rate, the carrier can establish a reasonably priced calling scope for its customers beyond their home BTA licensed service area. Calling scope has always been a critical component of competition in the wireless industry and disparity over the size of licensed service territories can be

⁹ Affidavit of Lisa Guarnacci-Attachment A.

¹⁰ **Id**.

¹¹ **Id**.

overcome by entering into friendly alliances with neighboring carriers. Thus, the new entrants can use such flexibility to better compete against the PCS providers holding the MTA licenses. As discussed in SBMS' Third NPRM Comments, imposing automatic roaming needlessly exacerbates an existing competitive preference based on the larger licensed service area enjoyed by PCS providers holding MTA licenses. Such existing competitive preference operates not only to the disadvantage of the cellular carriers holding the RSA and MSA licenses but also to the new entrant PCS providers holding the BTA licenses. Flexibility, not regulatory mandates and set uniform rates, are necessary for a competitive market.

SBMS' experience during the past 14 months since the filing of the Comments in response to the Third NPRM further demonstrates that an automatic roaming rule and resulting regulatory regime is not necessary. New entrants, existing carriers and the public are better served by continuing the pro-competition time tested and proven policy of free negotiation of automatic roaming agreements.

II. Mandating Automatic Roaming Enhances the Cost and Difficulty in Providing Number Portability.

The Commission requests comments on whether the automatic roaming proposals are technically compatible with the CMRS number portability requirements.¹³ CMRS providers are required to offer service provider portability throughout their networks by June 30, 1999. No carrier in the number portability procedure indicated that service provider portability on the wireless side could be reached by the June 30, 1999 time

¹² SBMS Third NPRM Comments, pp. 15-19.

¹³ Public Notice, p. 2.

frame. SBMS and other CMRS carriers explained in detail in the number portability proceeding and in this proceeding that service provider portability presented great challenges, both technically and financially, because the current system of automatic roaming relies heavily on the dialing party's NPA/NXX and that NPA/NXX generally being assigned only to one wireless carrier. ¹⁴ A copy of Appendix F-Wireless Number Portability Presents Unique Problems and Issues from the Comments of SBC Communications Inc. filed in the Number Portability Docket is attached to these comments as Attachment B.

The difficulties associated with wireless service provider number portability and its effect on roaming has caused the Cellular Telecommunications Industry Association (CTIA) to seek an extension of the June 30, 1999 deadline. As discussed in the CTIA Petition, the industry, to retain automatic roaming, has had to devise a system that splits the mobile identification number ("MIN") from the mobile directory number ("MDN"). Such a system requires creating a second ten-digit number which must be treated separately in all network functions. The industry is now creating standards for this new network architecture. Such standards will then need to be tested, refined and then implemented throughout the wireless networks.

A key factor yet to be adequately determined is the overall cost of implementing, administrating and operating wireless service provider portability, especially as it relates

¹⁴ See, e.g., SBC Comments, CC Docket 95-116, filed September 12, 1995, pp. 6, 15, Appendix F; See Also, Comments of Southwestern Bell Mobile Systems, Inc., pp. 13-18, CC Docket 94-54, filed June 14, 1995. NPA-NXX refers to the first 6 digits of the telephone number or Mobile Identification Number.

¹⁵ See, Petition for Extension of Implementation Deadlines of The Cellular Telecommunications Industry Association, CC Docket No. 95-116 (Filed November 24, 1997). Comments are due on the CTIA Petition on January 9, 1998.

to automatic roaming. Presumably, automatic roaming in a service provider portability environment will require a database dip, for verification purposes, with associated costs. Suffice to say, adding an automatic roaming requirement will increase the cost associated with the process and the ongoing costs. Manual roaming does not require the association of the MIN or the NPA/NXX portion of the MIN. Likewise, manual roaming will not require the association of the MIN or MDN in a wireless service provider number portability scenario. Thus, requiring automatic roaming will increase the costs associated with service provider number portability and will remove some of the competitive flexibility carriers would otherwise enjoy if automatic roaming was not mandated.

For example, as noted in SBMS' Comments to the Third NPRM, Carrier A may decide that the most efficient and economical way of providing roaming in a certain area would be to restrict new customers who want to port a number to its network to roam manually rather than paying the costs associated with having to go through the wireless number portability database. Thus, Carrier A may offer local service under this option at a less cost than a carrier who provides its customers who port a number to its network with automatic roaming. The various demographics of the specific market including the ability of the customers to roam and the desire to keep an existing wireless number will impact the success of each carrier's strategy. The fact remains, however, that each carrier retains the right to be innovative and to take risks for a competitive advantage, all to the benefit of the consumer. Such benefits would not be realized under a regime of mandatory automatic roaming.

Although the standards for wireless service provider portability, including automatic roaming functions, are still being developed and costs are uncertain, common sense indicates that requiring automatic roaming and the administrative burdens associated therewith will increase the cost of service. Such increase is demonstrated by the fact that carriers today have the flexibility to enter into roaming agreements when the agreements make commercial and competitive sense. The carrier must be convinced that the benefits of the agreement are worth the burden of establishing, implementing and administrating the agreement. Such analysis also determines the rate at which the carrier is willing to enter into the agreement. Having such flexibility to negotiate individually with the other carrier and not be restrained by regulatory mandates is the key to market driven negotiations which end up benefiting the consumer. The public interest is served by allowing CMRS carriers to retain the flexibility to negotiate automatic roaming agreements without regulatory fiats. The Commission should not promulgate regulations mandating automatic roaming.

CONCLUSION

For the reasons stated herein, in SBMS' Comments on the Third NPRM and in SBMS' Comments on the Second NPRM, the Commission should not mandate automatic roaming. Nothing has been presented to justify the elimination of the current market driven system. Nothing has been presented to warrant intrusive regulation that will have a chilling effect on competition, including the ability of cellular and PCS C/D/E/F block

holders to compete against those holding MTA licenses. Automatic Roaming should not be mandated by this Commission.

Respectfully Submitted,

Southwestern Bell Mobile Systems, Inc. Pacific Bell Mobile Services

Bruce E. Beard, Senior Counsel Jeanne A. Fischer, Senior Counsel 13075 Manchester Road, 1st Floor St. Louis, Missouri 63131

Carol L. Tacker Vice President & General Counsel 17330 Preston Road, Suite 100 Dallas, Texas 75252

AFFIDAVIT OF LISA GUARNACCI

Lisa Guarnacci being duly sworn, deposes and says:

My name is Lisa Guarnacci. I am over 21 years of age and am fully competent to offer this affidavit based on my personal knowledge. I am Director of Intercarrier Services for Southwestern Bell Mobile Systems, Inc. ("SBMS"). My responsibilities include the negotiation and administration of roaming agreements for SBMS' cellular and PCS markets.

SBMS currently has automatic roaming agreements with over 175 carriers.

In the past 14 months, SBMS has entered into roaming agreements with two PCS carriers, one holding licenses in the A/B block and one holding licenses in the C/D/E/F block. In addition, SBMS is in negotiation with six other PCS companies representing licenses both in the A/B block and C/D/E/F block. SBMS has also entered into a roaming agreement with a CMRS provider holding cellular and PCS licenses, which agreement covers both cellular and PCS. SBMS is also in negotiation with three other carriers providing both cellular and PCS for agreements covering all operations. No other FCC licensed PCS carriers have approached SBMS for a roaming agreement.

SBMS participates in and has developed arrangements/agreements to establish validation procedures and accommodate settlement and billing exchange for roaming services.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the day of January, 1998.

Sworn and subscribed before me this 2 day of January, 1998.

Skelley M. Harrison

Notary Public

{seal}

SHELLEY M. HARRISON NOTARY PUBLIC State of Texas Comm. Exp. 11-12-2000

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ATTACHMENT B

APPENDIX P

WIRELESS NUMBER PORTABILITY PRESENTS UNIQUE PROBLEMS AND ISSUES.

In developing a national number portability policy, the Commission must examine the impact on the wireless industry. wireless industry presents unique problems for number portability analysis due to differences in current network technology, the mobile nature of wireless customers, and the heavy reliance on NPA/NXX blocks being assigned to a single wireless carrier. differences between wireless service and wireline service and the unique burdens associated with implementation of wireless number portability prompted the Illinois Commerce Commission's industry workshop on number portability to disengage wireless number portability from the wireline number portability process. The workshop determined that its mission in the near-term would be to "develop, evaluate and recommend a wireline service number portability solution" with its long term mission being to "explore the desirability and feasibility of expanding wireline service provider number portability to provide number portability unencumbered by geography, service provider, service . . ". The unique burdens associated with wireless number portability mandate that it be looked at separately to determine the "desirability and feasibility" and the impact such portability will have on the availability and affordability of wireless services.2

¹ICC NP Workshop Mission Statement.

²Id. However, the Commission and the industry also need to keep in mind that any number portability policy or proposal for

Almost anything in telecommunications may be "technically feasible" if enough time and enough money are devoted to development and implementation. The question is whether the perceived benefit would be worth the cost and any detrimental effect the implementation would have on existing services. Wireless number portability would require not only changes to the wireless carriers' networks but changes to established roaming standards and processes, all of which will carry a price.

A primary, unique concern associated with wireless number portability is the effect on roaming. Roaming describes the situation which occurs when the subscriber of one commercial mobile radio service (CMRS) provider enters the service area of another CMRS provider with whom the subscriber has no preexisting service or financial relationship, and attempts either to continue an inprogress call, to receive an incoming call or to place an outgoing call. As the Commission has noted:

> Roaming capability is an increasingly important feature of mobile telephone communications. It is one of the attributes that prominently sets mobile telephony apart from landline service . . . We conclude that we should take any steps necessary to support roaming.

The availability of nationwide seamless roaming for the wireless customer is made possible by the existence of industrywide roaming standards and a pre-existing relationship between the

wireline must remain compatible with the wireless networks and possibly expandable to include wireless.

See, In the Matter of Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, CC Docket 94-54, Second Notice of Proposed Rule Making, para. 45 (Released April 20, 1995). ("Second NPRM 94-54").

CMRS provider he is a subscriber of (Home Carrier) and the CMRS provider whose service area he has entered (Serving Carrier). The efficiency of the current roaming system is premised on the fact that a NPA/NXX is normally assigned to only one particular CMRS provider. In short, cellular carriers rely on the ability to identify a roaming cellular customer's Home Carrier by the NPA/NXX or a certain sequential block of numbers in a NPA/NXX.

In order to understand the impact the loss of reliance on the NPA/NXX being assigned to a particular carrier, it is important to understand how the roaming currently works. A mobile phone emits its assigned ten digit telephone number (referred to as its Mobile Identification Number or MIN) assigned by the carrier he has service with (i.e. Home Carrier) and the unique serial electronic serial number of the phone (ESN). The MIN/ESN combination emitted by the roaming phone is used for validation and billing purposes, along with routing purposes.

The NPA/NXX of the MIN (10 digit phone number) is used by the Serving Carrier for carrier validation purposes—to see if the Home Carrier has a valid roaming agreement with the Serving Carrier.⁵ The NPA/NXX is used to determine the appropriate system id or SID, assigned by the Commission to the license holder of

^{&#}x27;In some instances CMRS providers may be forced to share a NPA/NXX code. In such instances each carrier is assigned a specific block of numbers for example one carrier may be assigned 214-618-0000 to 214-618-4999 and the other carrier will be assigned 214-618-5000 to 214-618-9999.

^{&#}x27;Cellular carriers enter into reciprocal Intercarrier Roaming Agreements that provide the terms for provision of service, billing, settlement and division of revenue.

record (i.e. Home Provider's SID) and BID, which is an extension of the SID, assigned by CIBERNET for billing purposes. The Serving Carrier will use the MIN and SID to validate the roaming customer through the Home Carrier.

currently, the tasks of validation, billing and settlement associated with the roaming process work economically and efficiently because the Home Carrier is only required to give the industry notice of which NPA/NXX combinations it is assigned rather than having to notify the industry each time a customer activates service and is assigned a number. For example, if Southwestern Bell Mobile Systems (SBMS) is assigned the 618 NXX in the Dallas 214 NPA, the industry can rely on the fact that any mobile phone emitting a 214-618-XXXX number is a SBMS Dallas customer. If service provider number portability is extended to wireless the entire industry will have to track the assignment of each individual phone number of each wireless customer. For example wireless carriers across the nation would need to know that 214-618-1234 is

Network connectivity between roaming partners is currently handled in one of three ways, through SS-7 backbone using IS-41, through a direct Switch-to-Switch connection using IS-41 or via clearinghouse through an X.25 connection that may or may not include IS-41 messaging. The amount of information sent to the Serving Carrier with the validation will depend upon the agreement of the parties, whether IS-41 messaging is used and the type of interconnection.

⁷Cellular carriers generally utilize an agreed upon clearinghouse (GTE TSI or EDS PCD) for settlement purposes. The industry billing standards titled Cellular Intercarrier Billing Exchange Records (CIBER) encompasses bill message format edits, negative file guidelines and tape processing. CIBER allows for smooth processing of the roaming call records for settlement and liability determination.

assigned to a SBMS customer, 214-618-1235 is assigned to a Metrocell Cellular customer, 214-618-1236 a SBMS customer and 214-618-1237 is assigned to a PCS provider. Further, a wireline customer of GTE may decide to transfer his number to his SBMS service, thus the industry would have to be able to identify a single ten digit number out of an entire NXX as being assigned to a SBMS customer.

Imposition of service portability between wireline and wireless providers will destroy the roaming process efficiencies associated with relying on a single NPA/NXX or block thereof being assigned to a single wireless carrier. Such portability will require development of new processes, data bases and standards to assure continuation of seamless nationwide roaming.

Service provider portability between wireline and wireless carriers will also require modifications to the Home Location Registers and Visitor Location Registers because the current data bases and memory utilization are not such that individual numbers can be ported. Current wireless networks are simply not technically capable of supporting number portability at this time.

The Commission needs to examine whether the benefit of such portability is worth the cost. The cost to wireless carriers and their customers will be great because the costs will include not only the costs associated with local portability but the costs associated with having to revamp the roaming process. The perceived benefit is that customers want to be able to keep their

phone number when switching from one wireless carrier to another or from landline to wireless or vis-versa and is willing to pay such costs. Such costs should not be forced upon wireless customers without a clear showing that there is a want and need for such portability. As the Commission recently stated it is "aware of customer concerns regarding the availability and pricing of roaming service and hope in that in the future, all CMRS providers will respond by implementing nationwide seamless roaming networks and by offering roaming service to interested subscribers at attractive, cost based rates". Imposition of the costs of number portability in a wireless environment may be contrary to customers concerns and the Commission's stated goals.

Various wireless facilities based carriers have already indicated their concerns regarding wireless number portability in the Comments and Replies to the <u>Second Notice of Proposed Rulemaking</u> in CC Docket 94-54. The issues associated with wireless number portability are different than those associated with wireline portability and present unique problems. Further, nationwide seamless roaming requires a nation-wide solution--piece meal implementation of differing standards and procedures for local number portability will effectively eliminate the existence of

Second NPRM 94-54, para. 56.

Proposed Rulemaking (Comments filed June 14, 1995; Reply Comments filed July 14, 1995); Comments of SNET Cellular, Inc., pp. 18-19; Comments of Rural Cellular Coalition, p. 8; Comments of New Par, pp. 23-24; Comments of Cellular Telephone Industry Association, pp. 25-26; Reply Comments of New Par, pp. 17-18; Reply Comments of BellSouth, pp. 16-17; Reply Comments of SNET, pp. 14-17.

nation-wide roaming availability. If the Commission decides to pursue the possibility of service provider portability between wireline and wireless it should defer to industry committees to further define the issues, develop standards and determine whether such portability is technically feasible under practical circumstances.